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FEE TRANSMITTAL	FEE TRANSMITTAL Complete if Known			
for FY 2006	Application Number	09/965,113		
Patent fees are subject to annual revision.	Confirmation Number	3953		
Effective December 8, 2004	Filing Date	September 26, 2001		
	First Named Inventor	Lin, et al.		
<u></u>	Examiner Name	L.T. Tran		
	Art Unit	1761		
TOTAL AMOUNT OF PAYMENT (\$)620.96	Docket No.	8258X		

METHOD OF PAYMENT	FEE CALCULATION (continued)			
1. [X] The Director is hereby authorized to charge indicated fees	5. ADDITIONAL FEES			
submitted on this form, credit any over payments, and	Fee Description	Fee Paid		
charge any additional fee(s) during the pendency of this application to:	Extension for reply within 1 st month (\$120)	[X]		
Deposit Account Number: 16-2480	Extension for reply within 2 nd month (\$450)	n		
Deposit Account Name: The Procter & Gamble Company	Extension for reply within 3 rd month (\$1,020	u		
	Extension for reply within 4th month (\$1,590	. 4		
FEE CALCULATION	Extension for reply within 5th month (\$2,160			
2. BASIĆ FILING FEE – Large Entity				
FILING SEARCH EXAMINATION	Information Disclosure Statement fee (\$180)	0		
FEE FEE FEE Application	37 CFR 1.16(f) Late Oath/Declaration			
Type Fee Paid	(nonprovisional) (\$130)	D		
Nonprovisional (\$300) (\$500) (\$200)	37 CFR 1.17 (q) Surcharge - Late provisional	u		
Utility (Total = \$1000) []	filing fee or cover sheet (\$50)	n		
Design (\$200) (\$100) (\$130)	Non-English specification (\$130)	0		
(Total = \$430) []	11011 Digital specification (\$150)	IJ		
Reissue (\$300) (\$500) (\$600)	Notice of Appeal (\$500)	n		
(Total = \$1400) []	, ,			
Provisional Utility filing fee (Total = \$200) []	Filing a brief in support of an appeal (\$500)	[X]		
3. <u>APPLICATION SIZE FEE:</u>	Request for oral hearing (\$1,000) []		
Sheets of Spec and Drawings []				
(\$250 for each 50 sheets in excess of 100, except for	Acceptance of unintentionally delayed claim for priority			
sequence and program listings) SUBTUFAL (2)+(3) (\$)[0]	under 35 U.S.C. 119, 120, 121, or 365 (a) or (c) (\$1,370 Other:			
	Oller.	0		
4. EXTRA CLAIM FEES FOR UTILITY AND REISSUE: Extra Fee from Fee				
Claims Below Paid				
Total Claims [] - 20** = [] x [] = []				
Independent Claims [] - 3** = [] x [] = []				
Multiple Dependent claims: [] = []				
** or number previously paid, if greater; For Reissues, see below				
Fee Description				
Claims in excess of 20 (\$50 per claim) Independent claims in excess of 3 (\$200 per claim)				
Multiple dependent claims in excess of 3 (\$200 per claim) Multiple dependent claim, if not paid (\$360)		i		
**Reissue: each independent claim over 3 and more than in the				
original patent (\$200 per claim) **Reissue claims: each claim over 20 and more than original patent				
(\$50 per claim)				
SUBTOTAL (4) (5)[0]	SUBTOTAL(5)	(\$) [620]		

SUBMITTED BY			Com	Complete (if applicable)	
Name (Print/Type)	S. Robert Chuey	Registration No. (Attorney/Agent)	39,140	Telephone	(513) 634-0102
Signature	(A)			Date	05/08/2006

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CENTRAL FAX CENTER

MAY - 8 2006

Application No.: 09/965,113

Inventor(s):

Peter Yau Tak Lin, et al.

Filed:

September 26, 2001

Docket No.:

8258X

Confirmation No.: 3953

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2) Appellants' Brief on Appeal (11 pages)

3)

4)

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MAY - 8 2006

P&G Case 8258X

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of

 Lin et al.
 : Confirmation No.: 3953

 Serial No.: 09/965,113
 : Group Art Unit: 1761

 Filed: September 26, 2001
 : Examiner: L. T. Tran

For: IMPROVED EMULSIFIER SYSTEMS FOR USE IN MAKING

DEHYDRATED STARCH INGREDIENTS

APPELLANTS' BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This Appeal is taken from the Final Office Action dated October 7, 2005, finally rejecting Claims 1-5, 7-12, and 38-41 of the present application. Appellants appealed to the Board of Appeals on January 6, 2006. The two month anniversary of this Appeal fell on a Saturday, and as such, a one month extension is believed required and a request is filed herewith.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company, assignee of Appellant's, entire right, title, and interest in the invention at issue. The Assignment to the Procter & Gamble Company for this case is recorded at the Patent and Trademark Office at Reel 012575 and Frame 0242.

RELATED APPEALS AND INTERFERENCES

Appellant, Appellant's undersigned legal representative and the Assignee are not aware of any pending appeals or interferences that would be directly affected by or have a bearing on the Board's decision in the subject Appeal.

STATUS OF CLAIMS

Claims 1-5, 7-12, and 38-41 are the subject of this appeal. No other claims are pending or allowed. Claims 6 and 13-37 were cancelled during prosecution. Claims 1-5, 7-12, and 38-41

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were finally rejected in the Final Office Action dated October 7, 2005. The claims on appeal are set forth in the Appendix.

STATUS OF AMENDMENTS

No amendments were filed or proposed after the Final Office Action in this case. And it is believed that all previous amendments have been entered and considered.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates to an emulsifier system comprising from 70 to 100%, by weight, of a polyglycerol ester having a polyglycerol backbone of from 2 to about 10 glycerol units. Not more than about 40% of the hydroxyl groups of the polyglycerol are esterified with fatty acids (hereafter "PGE"). The fatty acids are selected from the group consisting of oleic acid, palmitic acid, stearic acid, intermediate melting fatty acids, and mixtures thereof. [Claim 1] Preferably, at least about 80% of the PGEs, by weight, have a polyglycerol backbone of from 2 to about 5 glycerol units. [Claim 2]

By utilizing the improved emulsifier system of the present invention, manufacturers and producers of raw material ingredients for starch-based farinaceous snacks can increase production rate, decrease production costs, or both. [Specification, at page 2, lines 3-5] Additionally, utilization of the improved emulsifier system of the present invention can minimize changes in product aging (i.e., staling). Further, the emulsifier system may reduce the oil content of the fried or baked fabricated farinaceous snack. [Specification, at page 2, lines 10-12]

The improved emulsifying system of the present invention further provides increased flexibility in the process of formulating snacks using rice, wheat, corn and potato (e.g., granules, flakes or other dehydrated potato forms) ingredients. This leads to potential cost reduction, flavor improvement or both. [Specification, at page 2, lines 13-15]

Also important in the fabricated farinaceous foods industry is the cost and speed of the manufacturing process. The improved emulsifier system of the present invention provides process control optimization that allows the maximization of line speed control to be formulated and manufactured (e.g. tailored microstructure). [Specification, at page 2, lines 19-22]

The emulsifier system also provides farinaceous food products which exhibit improved dough antisticking properties; these anti-stick properties are important to aid in formulation, processing and manufacturing flexibility, and are particularly important in the manufacture of embossed snacks such as, for example, Pringles Ridges. Additionally, these anti-stick properties are important in relatively "weak" doughs (e.g., reduced sheet strength) such as doughs used for crackers and tortillas. [Specification, at page 2, lines 23-28]

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The improved emulsifier system of the present invention can be used to reduce the level of emulsifier needed in the dehydration process. In particular, it reduces the level of the emulsifier(s) needed as a processing aid in the drum drying operation. This reduces the cost of raw materials, as well as the potential for formation of off-flavors due to oxidation. In addition, the improved emulsifier system of the present invention may reduce potato cell breakage in the drum drying operation, which results in higher levels of flavor precursors. This results in farinaceous food products of improved flavor. [Specification, at page 2, lines 29-35]

For a fat-free snack such those fried in olestra, the level of emulsifiers in the dehydrated starch ingredients may be decreased. This allows the formulator to increase the level of other sources of triglycerides and still provide the reduced level of fat in the finished product necessary in most territories to make the fat-free claim. [Specification, at page 2, line 36-page 3, line 2]

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Are Claims 1-5 and 7-12 obvious over US Patent 4,680,184 to Seiden, under 35 U.S.C. § 103 (a)?

Are Claims 1, 38 and 40 novel over US Patent 6,242,499 B1 to Gruning, under 35 U.S.C. § 102 (e)?

Are Claims 39 and 41 obvious over Gruning, under 35 U.S.C. § 103 (a)?

ARGUMENTS

A. The Examiner's Rejections

Section 103 Rejection Over Seiden:

Claims 1-5 and 7-12 are rejected as being obvious under 35 USC 103(a) over U.S. Patent No. 4,680,184 to Seiden et al. (hereafter "Seiden"). At page 2 of the previous Office Action, the Examiner asserts that Seiden discloses emulsifier compositions that contain (i) 0-60% fatty acid esters of polyols (the Examiner characterizes PGEs as being within this polyol description by Seiden), (ii) fatty acid mono-diglyceride and (iii) fatty acid monoglyceride esters of polycarboxylic acids. (Appellants note that component (iii) monoglyceride esters of polycarboxylic acids, is actually mentioned by Seiden et al. as an optional ingredient.) The Examiner admits that Seiden does not teach claimed amount of polyglycerol ester, but asserts that absent a showing of unexpected results such a limitation would be obvious to a skilled artisan.

With respect to the mono-diglyceride component, Seiden provides that this material is included in an amount of from about 40 to about 100% by weight. (See Summary of the Invention at Col. 2.) At Col. 4, lines 21-25, Seiden provides that it is preferred that the described

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emulsifier compositions comprise from about 50 to 100%, more preferably from about 70 to 100%, mono-diglyceride.

In contrast, Appellants' amended Claim 1 provides that the emulsifier system comprises 70-100% of the polyglycerol ester (PGE) material(s). Clearly, if any mono-diglyceride were included in Appellants' emulsifier system, it would only be at a level up to 30%, which is well below the teaching of Seiden. Appellants respectfully submit that Seiden does not describe Appellants' high PGE-content emulsifier systems. Moreover, Seiden does not suggest that such systems would provide beneficial properties, particularly when one considers that Seiden prefers much higher mono-diglyceride content and, therefore, much lower polyglycerol ester content.

The Examiner bears the burden of factually supporting any prima facie conclusion of obviousness. In determining the differences between the cited art and the claims, the question is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. See Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fe. Cir. 1983). If the Examiner does not prove a prima facie case of unpatentability, then without more, the Appellant is entitled to grant of the patent. See In re Oetiker, 977 F.2d 1443.

To establish a prima facie case of obviousness under 35 U.S.C. §103, the Examiner must meet three basic criteria. First there must be a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. And finally, the prior art reference (or references when combined) must teach all of the claim limitations. See, for example, In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991). Appellants respectfully assert that the references cited in the Office Action fail to teach all claim limitations, and thus, fail to establish a prima facie case of obviousness under 35 U.S.C. §103.

In the present case, the Examiner has compared the reference to the present claims, noted the differences and made the unsupported conclusion that the modifications to Seiden necessary to arrive at the present invention are obvious absent the showing of unexpected results. The Examiner has not met the burden in this case. There is no teaching or suggestion in Seiden itself that the modifications should be made, nor is there any teaching or suggestion of the benefits that would ensue should the modifications be made. Nor does the Examiner assert that these teachings exist. As such, the Examiner has failed to establish a *prima facie* of obviousness. Having failed to meet the burden of first establishing a *prima facie* case of obviousness, unexpected results need not be show.

But even if unexpected results need not be shown, the Appellants have demonstrated numcrous benefits of the present emulsifier systems, including an increase in the production rate of fabricated snack chips (e.g. potato chips, tortilla chips, corn chips and the like), a decrease in

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production costs, or both. Additionally, product aging (i.e., staling) can be improved, along with increased flexibility in the process of formulating snacks using rice, wheat, corn and potato ingredients. Process control optimization can be achieved with the present emulsifier system that allows the maximization of line speed control. Moreover, improved dough antisticking properties can be achieved with the present emulsifier systems. These anti-stick properties are important to aid in formulation, processing and manufacturing flexibility, and are particularly important in the manufacture of embossed snacks such as, for example, Pringles Ridges.

Finally, among the more important benefits of this invention is the ability to reduce the level of emulsifier needed in the dehydration process. This in turn reduces the cost of raw materials, as well as the potential for formation of off-flavors due to oxidation, which improves the flavor of the resulting chip. Decreasing the level of emulsifiers in the dehydrated starch ingredients allows the formulator to increase the level of other sources of triglycerides and still provide the reduced level of fat in the finished product. This is especially important when trying to reduce the fat content enough to make a "fat free" claim.

It is respectfully requested that the present rejection of claims 1-5 and 7-12 as being obvious under 35 USC 103(a) over Seiden be overturned because the Examiner has failed to establish a *prima facie* case of obviousness.

Section 102 and 103 Rejections Over Gruning:

Section 102 Over Gruning

Claims 1, 38 and 40 are rejected as being anticipated under 35 USC 102(e) by U.S. Patent No. 6,242,499 to Gruning et al. (hereafter "Gruning"). Claims 39 and 41 are rejected as being obvious under 35 USC 103(a) over Gruning.

The Examiner asserts that Gruning describes polyglycerol ester emulsifiers that read on Appellants' claims. The Examiner specifically asserts that Gruning teaches esters obtained by esterification of a polyglycerol mixture with fatty acids having from 12-22 carbons, and that the degree of esterification is between 30 and 75%. The Examiner further asserts that Gruning teaches polyglycerol esters where the backbone of the polyglycerol has oligomer distribution overlapping with that claimed by Appellants.

The crux of the Gruning reference is the use of <u>polyfunctional carboxylic acids</u> to form polyglycerol esters that are improved water-in-oil ("W/O") emulsifiers. At the paragraph spanning Columns 1 and 2, Gruning et al. state that

[i]t was an object of the invention to provide novel polyglycerol esters which can be prepared from nature materials and, compared with polyglycerol

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polyhydroxystearate exhibit the additional advantage of improved stability, in particular higher freeze-thaw stability, of the W/O emulsions prepared therewith.

Extended storage at very low temperatures or extreme temperature changes during relatively long transport distances can cause the inadequate emulsion stability to become apparent..., or even can result in complete emulsion breakdown, which is avoided by the novel solution to the-object [sic].

In the Field of the Invention section, Gruning indicates that the emulsifiers described are useful in the cosmetic, pharmaceutical and micropigments fields.

Under 35 U.S.C. § 102, a claim is anticipated only if each and every claim limitation is found, either expressly or inherently disclosed, in a single prior art reference. See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there. See *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 43 USPQ2d 1481, 1490 (Fed. Cir. 1997). Additionally, there must be no difference between what is claimed and what is disclosed in the applied reference. See *Scripps v. Genetech Inc.*, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

In contrast to the disclosure of Gruning, Appellants describe fatty acid(s) for use in forming the claimed PGEs. Specifically, Claim 1 now provides that the fatty acids are selected from oleic acid, palmitic acid, stearic acid, intermediate melting fatty acids, and mixtures thereof. Thus, claim 1 does not encompass the polyfunctional carboxylic acid containing polyglycerols described by Gruning, and is novel over Gruning. Claims 38 and 40 depend directly from claim 1 and are both novel over Gruning.

Accordingly, it is respectfully requested that the present rejection of claims 1, 38 and 40 as lacking novelty under 35 USC 102(e) over Gruning be overturned because Gruning fails to disclose the claimed fatty acids used to produce the present emulsifier systems.

Section 103 Over Gruning

With regard to claims 39 and 41, which depend indirectly from claim 1, the Examiner has failed to meet the burden of establishing a prima facte case of obviousness. To establish a prima facte case of obviousness under 35 U.S.C. §103, the Examiner must first establish that there is a suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. In the previous Office Action, at page 3, the Examiner appears to agree that the poly functional carboxylic acids are different that the fatty acids of claim 1 and 38-41 (this alone seems to negate the novelty rejection discussed above). The Examiner then suggests that because the poly functional carboxylic acids of Gruning are not

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expressly excluded from the claims, that Gruning renders these claims obvious. This assertion does not meet the Examiner's legal standard. There is no teaching or suggestion in Gruning or in the possession of the skilled artisan that this modification should be made. Once again, the Examiner relies on unsupported conclusion that because Gruning relates to an emulsifier (for an entirely different field of use) that all of the modifications necessary to get from Gruning's teachings to the present claims are obvious. This does not meet the Examiner's legal standard.

Therefore, it is respectfully requested that the present rejection of claims 39 and 41 as being obvious under 35 USC 103(a) over Gruning be overturned because the Examiner has failed to establish a *prima facie* case of obviousness.

CONCLUSION

For all of the foregoing reasons, it is respectfully asserted that the emulsifier systems of the present claims are indeed patentable over the prior art. Reversal of these rejections is therefore respectfully requested.

:

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Respectfully submitted,

For: LIN, ET, AL.

S. Robert Chuey

Attorney for Appellants Registration No. 39,140 Telephone: (513) 634-0102

Date: May 8, 2006 Customer No. 27752

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CLAIMS APPENDIX

- 1. An emulsifier system comprising from 70 to 100%, by weight, of a polyglycerol ester having a polyglycerol backbone of from 2 to about 10 glycerol units wherein not more than about 40% of the hydroxyl groups of the polyglycerol are esterified with fatty acids (hereafter "PGE") and wherein the fatty acids are selected from the group consisting of oleic acid, palmitic acid, stearic acid, intermediate melting fatty acids, and mixtures thereof.
- 2. An emulsifier system of Claim 1 wherein at least about 80% of the PGEs, by weight, have a polyglycerol backbone of from 2 to about 5 glycerol units.
- 3. An emulsifier system of Claim 1 wherein at least about 80% of the PGEs, by weight, have a polyglycerol backbone of 2 or 3 glycerol units.
- 4. An emulsifier system of Claim 1 wherein from about 20% to about 35% of the hydroxyl groups of the polyglyerol are esterified with fatty acids.
- 5. An emulsifier system of Claim 1 comprising PGEs wherein at least about 80% of the ester groups are derived from saturated fatty acids.
- 7. An emulsifier system of Claim 1 wherein the emulsifier system contains not more than about 15% free polyglycerol.
- 8. An emulsifier system of Claim 1 comprising a material selected from the group consisting of 2-1-P, 2-1-S, 3-1-P, 3-1-S, 4-1-P, 4-1-S, and mixtures thereof.
- 9. An emulsifier system of Claim 1 further comprising monoglyceride.
- 10. An emulsifier system of Claim 1 further comprising a lecithin.
- 11. An emulsifier system of Claim 10 comprising from about 1% to about 25% lecithin, and from about 75% to about 99% PGE.
- 12. An emulsifier system of Claim 10 further comprising monoglyceride.
- 38. An emulsifier system of Claim 1 comprising polyglycerol monoesters having a polyglycerol backbone of from 2 to about 10 glycerol units, wherein at least about 40%, by weight, of the polyglycerol monoesters are diglycerol monoesters.

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- 39. An emulsifier system of Claim 38 wherein at least about 75%, by weight, of the polyglycerol monoesters are comprised of one or more of 2-1-S, 2-1-P and 2-1-IM.
- 40. An emulsifier system of Claim 1 comprising polyglycerol monoesters having a polyglycerol backbone of from 2 to about 10 glycerol units, wherein at least about 40%, by weight, of the polyglycerol monoesters are di-triglycerol monoesters.
- 41. An emulsifier system of Claim 40, wherein at least about 75%, by weight, of the polyglycerol monoesters are di-triglycerol monoesters.

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Application Number 09/965,113 Attorney Docket Number 8258X Appeal Brief dated May 8, 2006

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EVIDENCE APPENDIX

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RELATED PROCEEDINGS APPENDIX